



**KENYA METEOROLOGICAL DEPARTMENT
DEKADAL AGROMETEOROLOGICAL BULLETIN**

**WEATHER AND CROP REVIEW FOR DEKAD 21, 2013
21-31 JULY 2013**

1. HIGHLIGHTS ON RAINFALL AND TEMPERATURE

Rainfall activities in the Country have increased significantly as compared to the previous dekad of twentieth. Kitale station in North Rift region recorded the highest amount of rainfall of 113.6mm in the country. Lamu station in the Coastal region recorded the highest rainfall of 77.1mm, a significant increase as compared to the previous Dekad. In North Eastern region there was a significant improvement of rainfall both in spatial and temporal with Moyale recording the highest of 92.0mm as Embu, station in Eastern region reported the highest amount of rainfall of 23.8mm, which was an increase from 5.2mm recorded at the same station in the last dekad. In Nairobi region, Ngong station recorded the highest amount of rainfall of 10.4mm, almost to tie with Dagoretti with 10.2mm unlike the previous dekad where no rainfall was reported. In Central region, Nyahururu station recorded the highest amount of rainfall of 109.7mm slightly up from 76.1mm

The Maximum Temperature decreased slightly in most parts of the country compared to the previous dekad while Minimum Temperature increased considerably. In the dekad, Lodwar station reported the highest maximum temperature of 32.7°C. Nyahururu station in Central region reported the lowest temperature of 8.9°C.

For a more comprehensive summary of rainfall and other meteorological parameters, see Figures 3.1 to 3.4 as shown below.

2. CROP AND WEATHER REVIEW FOR DEKAD 21; 21-31 JULY, 2013

2.1 NYANZA AND WESTERN REGIONS

2.1.1 Kakamega

The station received rainfall amount of 61.2mm. The mean air temperature and sunshine hours were 20.4°C and 6.7hrs respectively. The pan evaporation recorded was 44.7mm.

Maize crop is in full ripeness stage and in good state with normal yields expected.

2.1.2 Kisii

The station recorded rainfall amount of 46.5mm for the dekad. The mean air temperature and total pan evaporation recorded were 20.0°C and 40.5mm respectively. Sunshine duration recorded was 6.7hrs.

Maize crop was at full ripeness stage and in fair state as normal yields expected.

2.2 RIFT VALLEY REGION

2.2.1 Kitale

The station received rainfall amount of 113.6mm. The average air temperature and pan evaporation were 18.7°C and 36.1mm respectively. There was no report on sunshine duration.

Maize is at flowering stage and in good state while beans are at harvest stage and in good state. Normal yield expected for both crops.

2.2.2 Eldoret-Kapsoya

The station received rainfall amount of 93.2mm. The average air temperature and pan evaporation reported were 16.7 °C and 46.7mm respectively. Sunshine duration recorded was 5.6hrs.

Maize was at flowering stage and in fair state. Normal yield expected while beans had already been harvested.

2.3 CENTRAL KENYA HIGHLANDS AND NAIROBI AREA REGION

2.3.1 Nyeri

The station received rainfall amount of 15.2mm. The average air temperature was 15.3°C. There was no report on pan evaporation and sunshine parameters.

Maize crop was at wax ripeness stage and in a poor state with below normal yield expected due to adverse effect by stalk borer while beans, have been harvested.

2.3.2 Kabete

The station recorded rainfall amount of 5.4mm. The average air temperature and pan evaporation recorded were 16.4°C and 22.9mm respectively. Sunshine duration recorded was 2.3hrs.

Maize was at wax ripeness stage and in a fair state. Beans were at maturity stage and in a fair state with normal yield expected. Coffee was at 100% berry hard stage and in a moderate state but damaged by leaf rust and leaf minor at less than 10% each. Bananas were at 100% appearance of sucker stage and in a moderate state but damaged by thrips, cigar end rot and cigar Toka at less than 10% each.

2.3.3 Thika

The station received rainfall amount of 45mm. The mean air temperature and pan evaporation recorded were 17.9°C and 20.5mm respectively. Sunshine duration recorded was 1.1hrs.

Maize crop was at harvest stage and in poor state. Insufficient rainfall has adversely affected the crop with below normal yield is expected.

2.3.4. Nyahururu

The station received 109.7mm of rainfall. The mean air temperature and pan evaporation recorded were 14.2°C and 37.2mm respectively. There was no report on sunshine.

Maize was at flowering stage while potatoes were at harvest stage and in a good state. Beans were at flowering stage and in a fair state. Normal yield expected for both beans and potatoes.

2.3.5 Dagoretti

The station received rainfall amount of 10.2mm. The mean air temperature and evaporation pan recorded were 17.0°C and 29.8mm respectively. Sunshine hours reported was 2.4hours per day.

2.4 EASTERN KENYA REGION

2.4.1 Meru

The station reported rainfall amount of 3.6mm. The average air temperature and pan evaporation were 16.6°C and 26.6mm respectively. The sunshine hours recorded was 3.5hrs.

Maize was at maturity stage but in a poor state with below normal yield expected. This is due to adverse effects of insufficient rainfall during the previous dekad.

2.4.2 Embu

The station recorded rainfall amounts of 23.8mm. The average air temperature was 17.1°C. Sunshine hours and pan evaporation parameters recorded were 0.47hrs and 17.3mm respectively.

Maize was at mature stage and in poor state due to moisture stress. Below normal yields is expected

2.4.3 Katumani (Machakos)

The station recorded rainfall amount 2.4mm. The average air temperature and sunshine duration were 17.1°C and 1.9hrs respectively. There was no report on pan evaporation.

Maize was at harvesting stage and in poor state as had been adversely affected by insufficient rainfall with below normal yield expected. Farmers have started harvesting their crop.

2.5 COASTAL REGION

2.5.1 Msabaha

The station received rainfall amount of 40.0mm. The average air temperature and pan evaporation recorded was 25.5°C and 34mm respectively. The sunshine duration was 6.1hours.

Maize was at maturity stage and in fair condition while Mangoes were at 100% new leaves and 90% fruit setting stages and in good state.

2.5.2 Mtwapa

The station received rainfall amount of 36.0mm. The average air temperature and pan evaporation recorded were 25.2°C and 41.0mm respectively. Sunshine hours recorded was 6.1hrs.

Maize was at harvest stage and in good state though adversely affected by birds, animals and stalk borer though normal yield is expected. Harvesting of early maize is going on all over the region. Mangoes were at harvesting stage and in fair state.

3.0 ANALYSIS OF RAINFALL, TEMPERATURE AND VEGETATION CONDITIONS

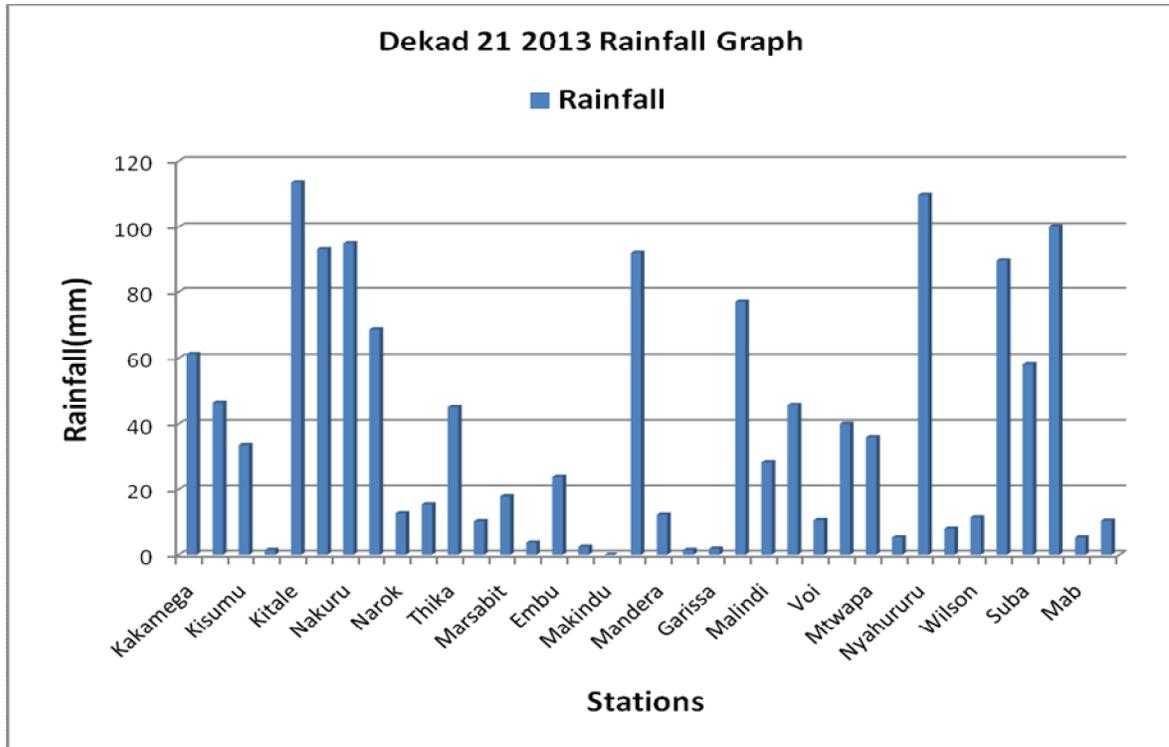


Figure 3.1: Dekadal rainfall totals for 21st to 31st July 2013

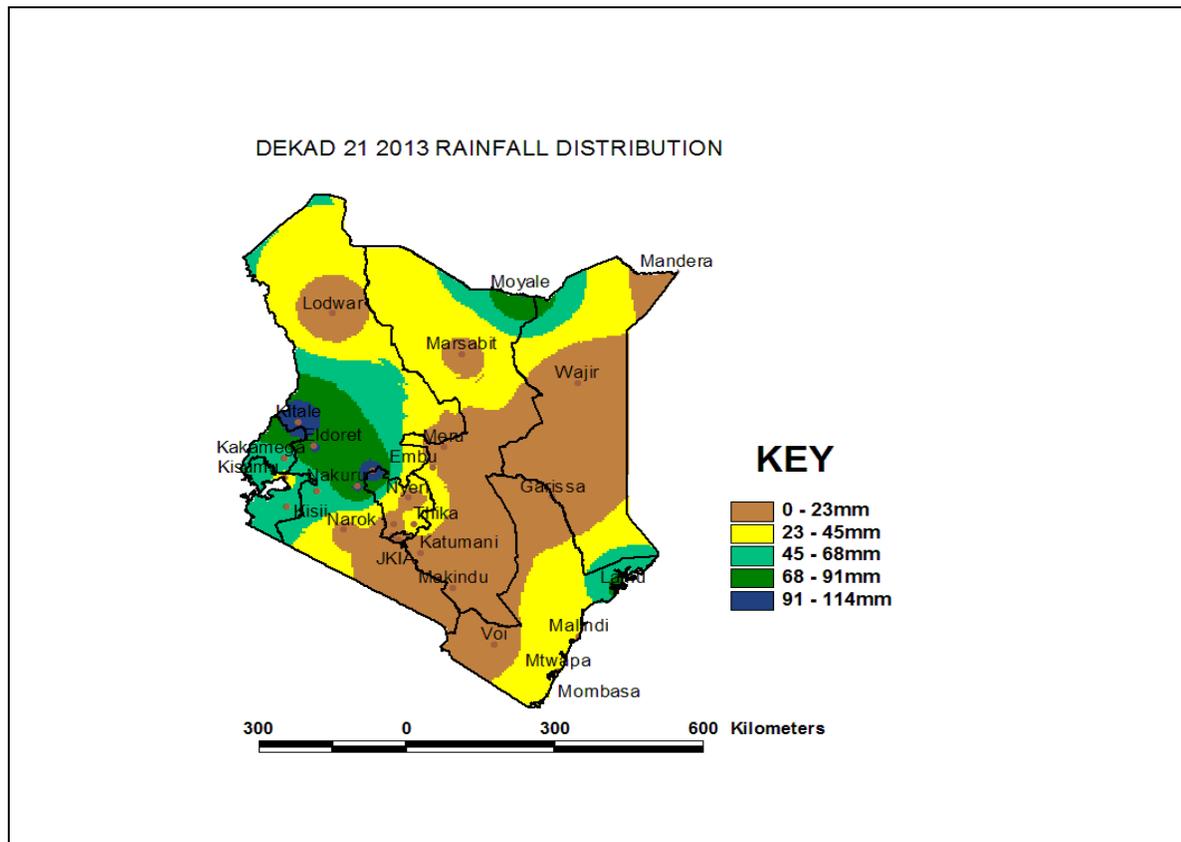


Figure 3.2: Dekadal rainfall distribution for dekad 21, 2013

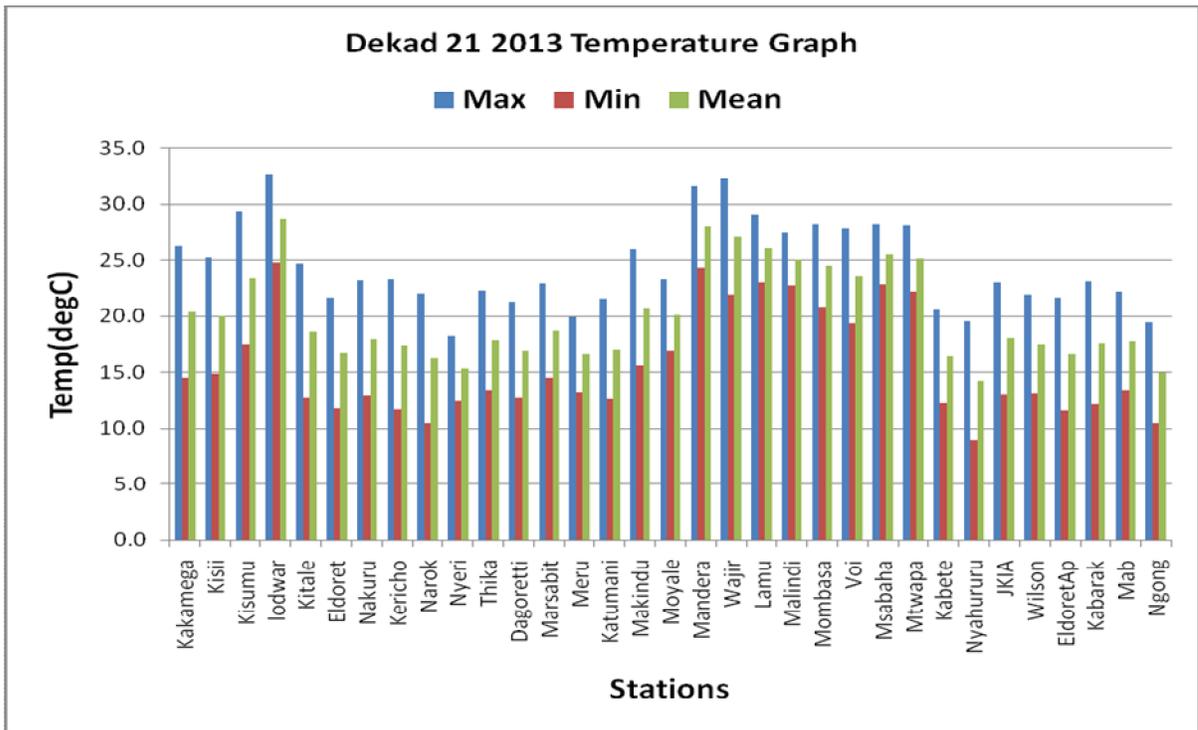


Figure 3.3: Maximum, Minimum and Average temperature in °C for dekad 21, 2013

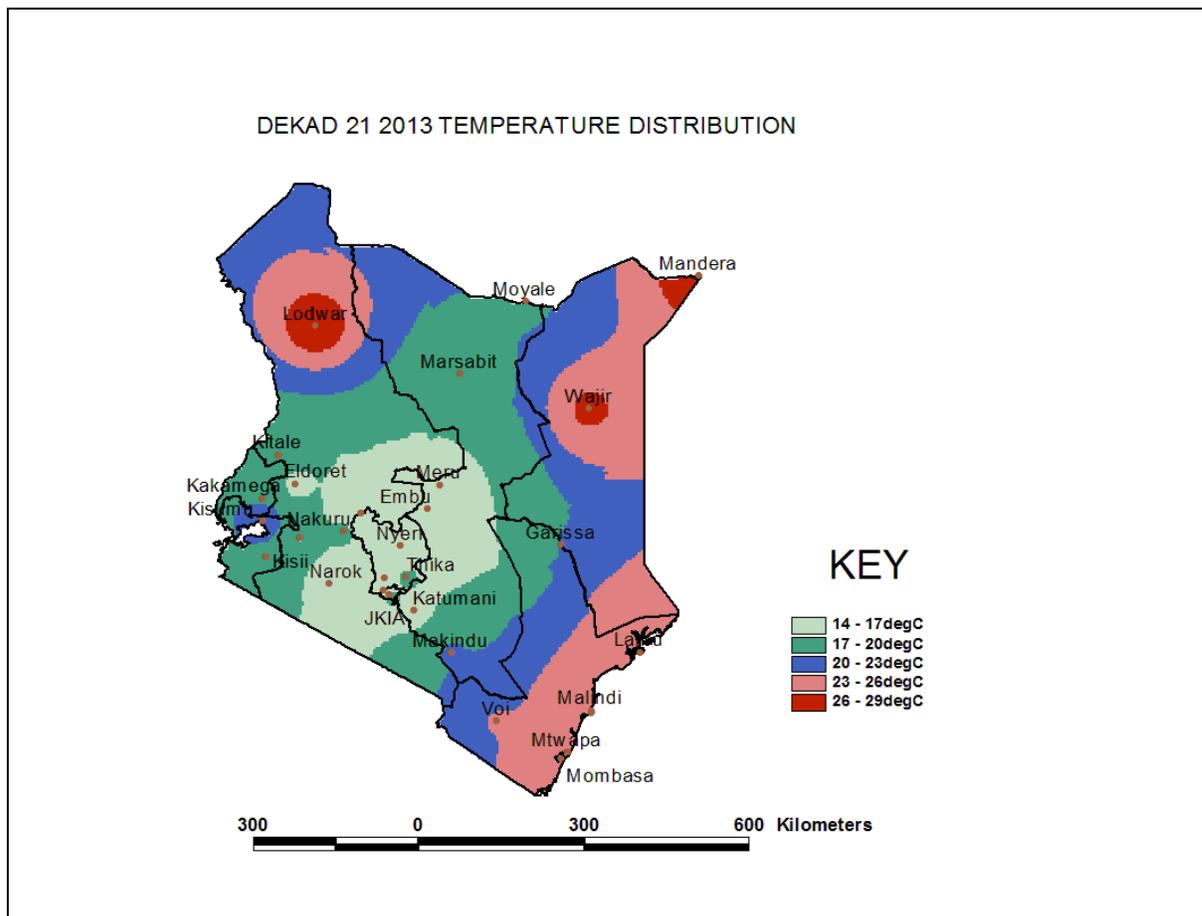


Figure 3.4: Mean temperature distribution for dekad 21, 2013

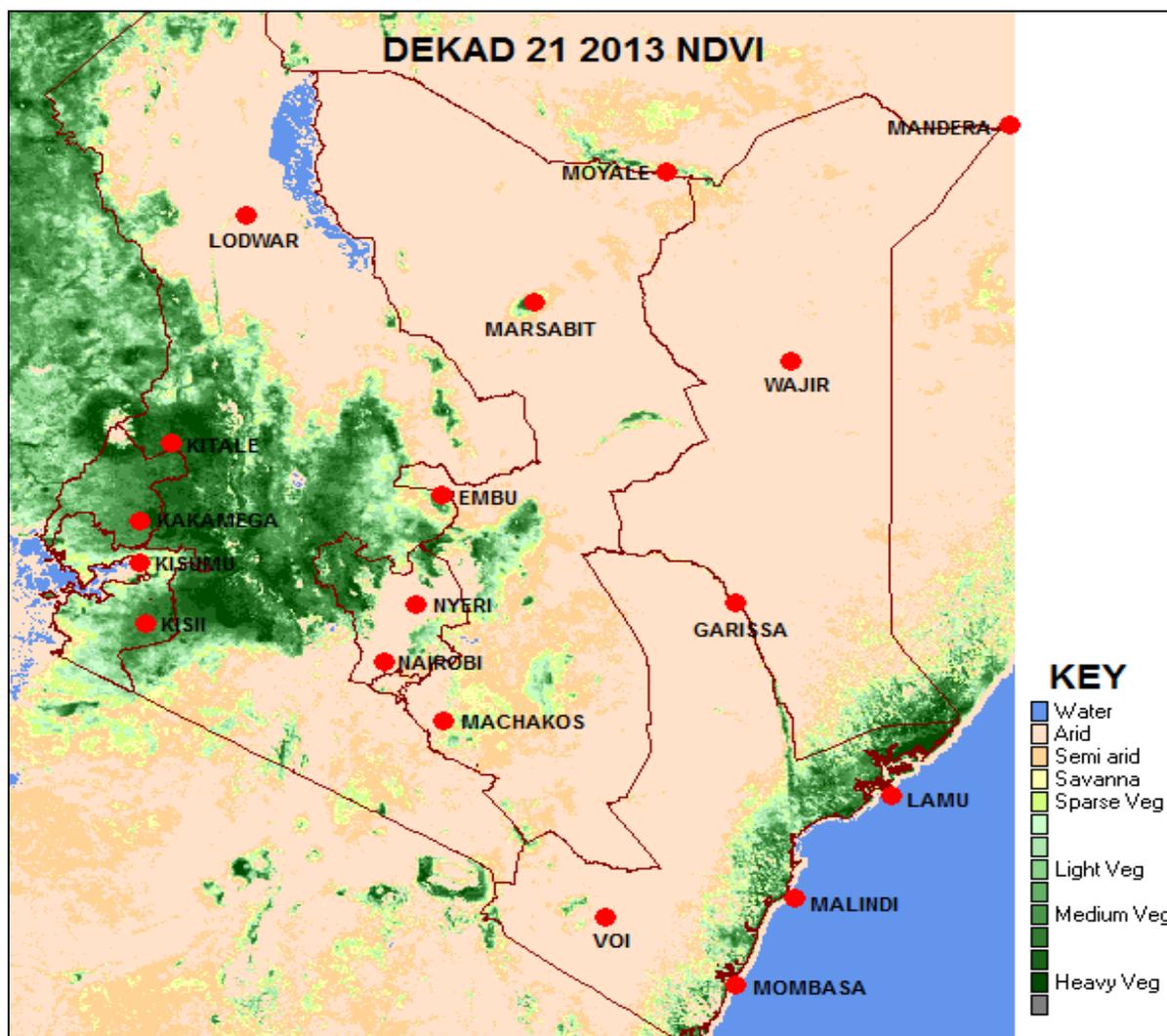


Figure 3.5: Normalised Difference Vegetation Index (NDVI) for dekad21, 2013

4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 1ST TO 10TH AUGUST 2013

- ✚ Counties within the Lake Victoria Basin, Highlands west of the Rift Valley, Nyamira, Kericho, Bomet, Uasin-Gishu, Nakuru, Narok, Trans Nzoia, Elgeyo Marakwet, Nandi, Laikipia, Kajiado, Vihiga and Busia), are expected to experience sunny intervals in the morning while afternoons are expected to experience showers and thunderstorms over few places for the entire forecast period.

The showers continue to be of great benefit to some crops that are now in their wax ripeness stage and the vegetation growing in the region.

- ✚ Over the Northwestern counties (Turkana, West Pokot and Samburu), are expected to experience sunny intervals in the morning and showers in the afternoon during the first half for the forecast period.

The dry conditions will influence negatively on the pastures and vegetation cover in these regions.

- ✚ **The Central highlands including Nairobi area (counties of Meru, Murang'a, Kiambu, Nyeri, Nairobi, Embu, Nyandarua, Tharaka and Kirinyaga),** are expected to experience cloudy early mornings accompanied by light rains over few places and sunny intervals in the afternoon with showers over few places.

The wet conditions will benefit the crops growing in the region and vegetation.

- ✚ **Northeastern counties (counties of Marsabit, Mandera, Wajir, Garissa and Isiolo),** are expected to experience sunny intervals and rain over few places in the morning and sunny interval in the afternoon over the entire forecast period.

Dry conditions expected to be unfavorable to the pastures and vegetation in these regions.

- ✚ **Southeastern lowlands (counties of Taita Taveta, Makueni, Machakos and Kitui),** are expected to experience sunny intervals in the morning and the afternoon for the entire forecast period.

Dry conditions expected to impact negatively on the growing crops and pastures in these regions.

- ✚ **In the Coastal strip (counties of Mombasa, Malindi, Kilifi, Lamu, Kwale, etc),** are expected to experience sunny and showers over few places in the mornings and sunny intervals in the afternoons for the entire forecast period.

The morning showers continue to benefit crops and vegetation in these regions.

For feedback or further guidance, Contact:

Director,

Kenya Meteorological Department,

Agro meteorological Advisory Services Division,

Dagoretti Corner, Ngong Road, P.O. Box 30259, 00100 GPO, Nairobi

Tel: +254 (0)20 3867880-7/3876957/3873682; Fax: +254 (0)20 3876955

E-mail: agromet@meteo.go.ke;

Website: www.meteo.go.ke

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